

JFK
File

12 February, 1969

MEMORANDUM FOR THE RECORD

SUBJECT: Meeting of the Automap Data Bank Study Group

1. The fourth session took place on 12 February 1969. The full study group attended the meeting. Considered were the [redacted] retrieval experience, updating, and control.

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2. The purpose of the [redacted] experiment was to demonstrate the feasibility of a country-by-country approach to building a cartographic data bank. The method of accomplishing this was to digitally input the sources for a NIS Summary Map, generate the required base maps and insets, and gradually accumulate enough data to create a data bank. With 30 revisions normally scheduled each year, an existing program would be used to build the bank.

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[redacted] and the eight 1:250,000 base sheets became 23. Despite this the system worked and the schedule was met. It was proven that multiple sources could be used if amended across sheet lines and that the country-by-country approach was clearly unsuitable because what was asked was too much for the system design and operating techniques at the time. The real significance for this discussion was the retrieval scheme which was created and operated in a production situation. Chronologically, the effort proceeded as follows:

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- a. Compiler annotated map sheets.
- b. Line segments were coded and indexed.
- c. Lists of city locations were supplied and keypunched.
- d. Each sheet was digitized and processed, including proofing and conversion.
- e. Retrieval specification sheets were prepared to guide retrieval and plotting. This was accomplished by:
 - (1) Establishing color plate separation.
 - (2) Listing features to appear (roads, rivers, etc.).
 - (3) Subdividing features (primary highways, second class roads, trails, etc.).
 - (4) Stipulating sorts required to achieve (3).
 - (5) Preparing plotting specifications.

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next described the retrieval process used to extract the information desired for [REDACTED]. Four criteria were used--area, line segment number, feature and scale, with the emphasis on the last two. The program is diagrammed in Illustration 1. It was stated that some alteration may be desirable to permit the retrieval of line segments with certain types of different attributes. Unmentioned at the time was a recent proposal to enter plot instructions for each file at the retrieval stage. The plot program would then type out on the plotter teletypewriter items like tool desired, line weight, ink color, etc., at the beginning of each plot file. The last item was a review of the sequence of retrieval events. In order the following happened:

- projection selected
- frame delineated
- center computed
- scale chosen
- plate separation established
- separation elements picked
- sub-elements picked
- plot instructions prepared

In an on-line system, a single integrated program will be needed to carry out these same functions.

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3. The purpose of the updating process is to make current and improve the quality of the data bank. [REDACTED] went through the initial steps using the update of South America as an example. [REDACTED]

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[REDACTED] then explained the updating program as shown in Illustration 2. Questions were raised about the feasibility of introducing small changes on an existing line segment without scrapping the entire line or manually altering the record.

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4. The purpose of the small control operation connected with Automap is to maintain numerical integrity and to provide a retracable history for the system. This is accomplished by using a ledger with entries both by continent and job number. Under job the description includes who compiled, coded, indexed, and digitized, when, and the numerical coding scheme. Cited for future consideration were the lack of a tie between this file and the index and the feasibility of a machine record for this purpose.

5. Three items were introduced that did not quite fit in the above paragraphs. The digital storage of terrain within the data bank was mentioned. This proposal would convert existing terrain plates through scanning, store them, and then plot them at various scales and employ different projections. The strategy of tapering rivers either by segmenting or width ranging was brought up as was the desirability of automatically incrementing points along straight lines to be digitized.

Illustration 1

RETRIEVAL PROGRAM

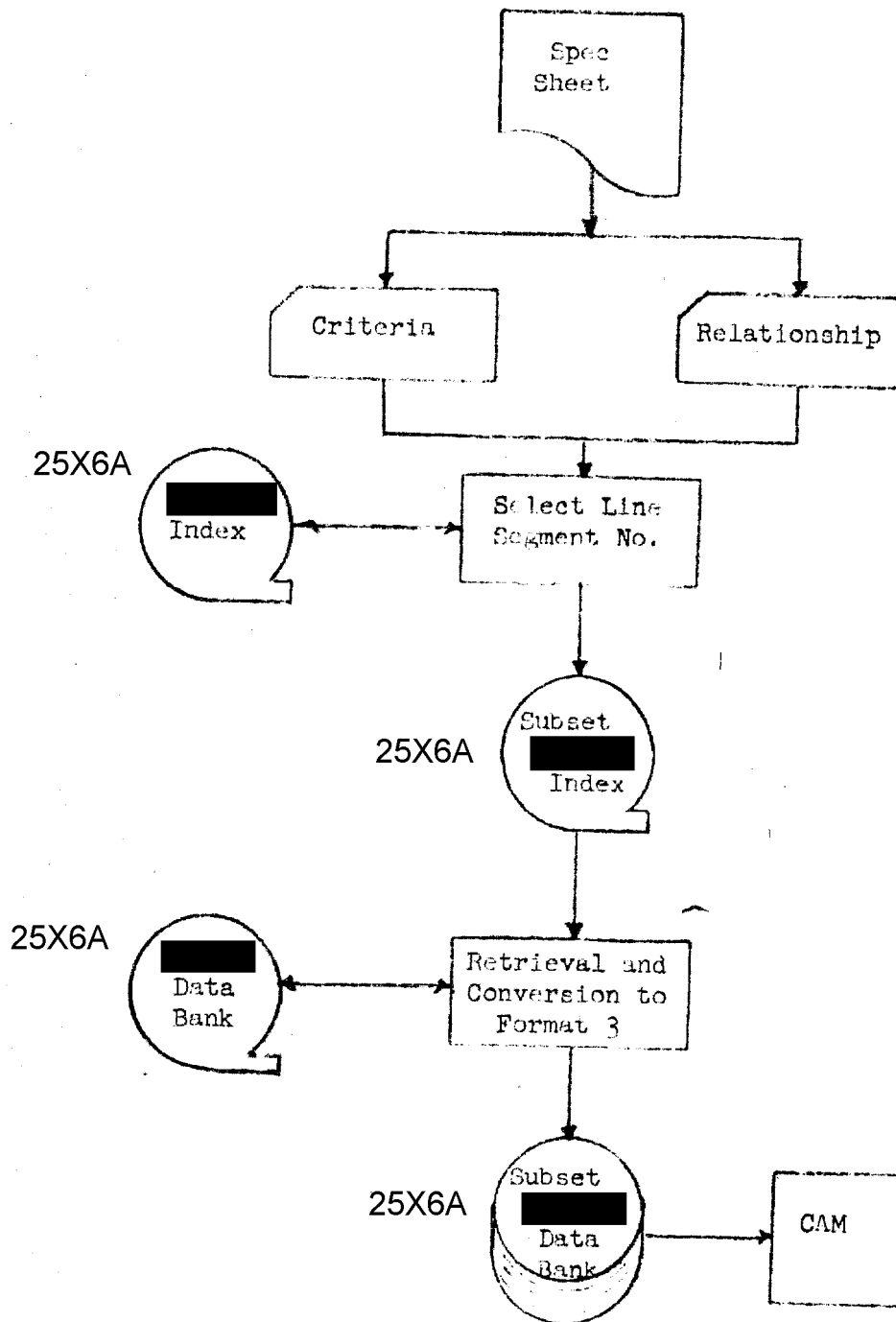
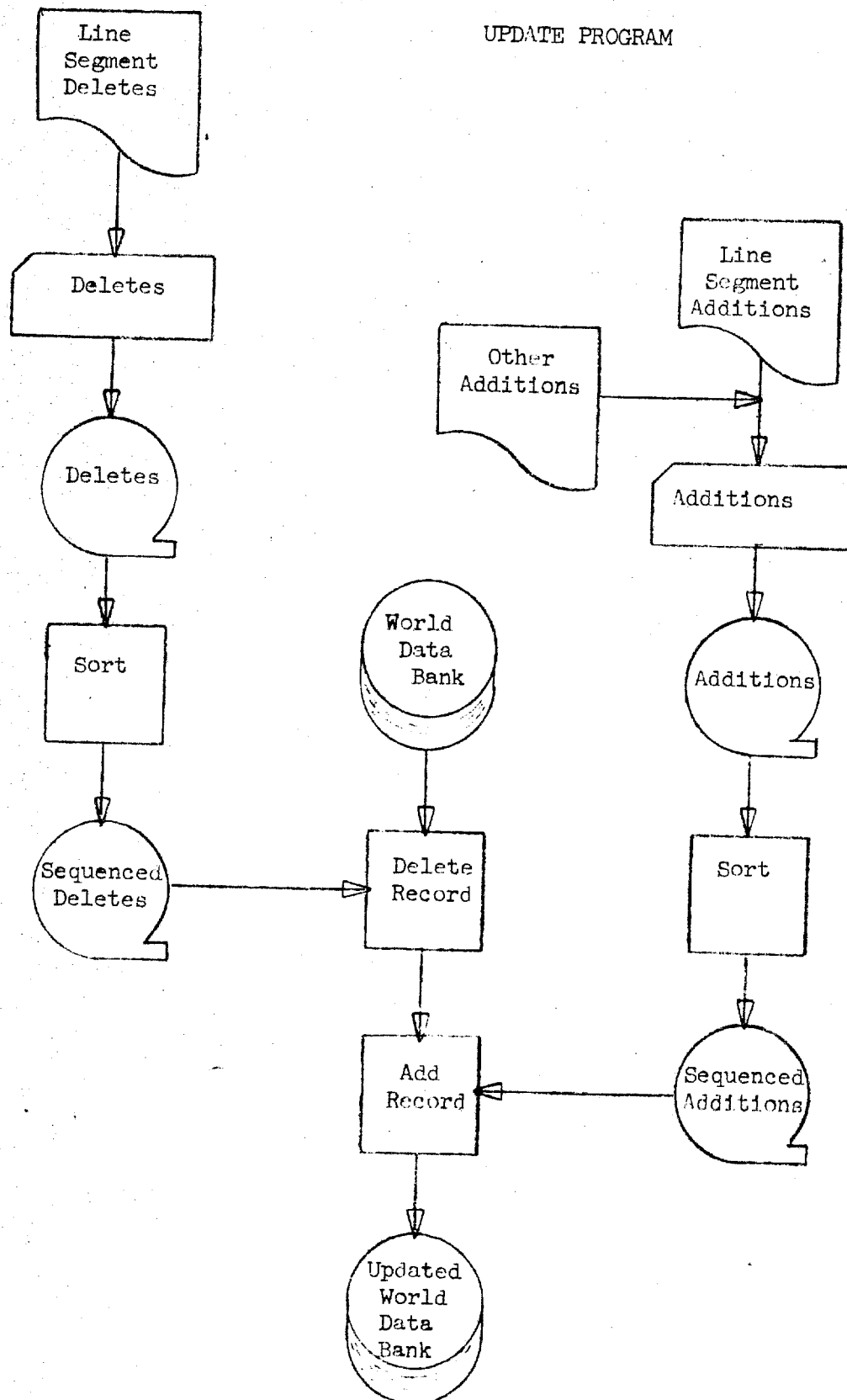


Illustration 2

UPDATE PROGRAM



6. Retrieval needs and strategies will be the topic for the first working session on Wednesday, 19 February, 0900-1100. The room will be changed to 1D1601.

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